

**QUESTIONS AND ANSWERS
DOUBLE-CRESTED CORMORANT MANAGEMENT
FINAL RULE**

Q. What is a double-crested cormorant?

A. The double-crested cormorant (*Phalacrocorax auritus*) is a long-lived, colonial-nesting waterbird native to North America. One of 38 species of cormorants worldwide, and one of six species in North America, it is usually found in flocks, and is sometimes confused with geese or loons when on the water.

Q. Where do they live?

A. Double-crested cormorants can be found in many locations throughout North America, including along the coast and inland on lakes, rivers, and other water bodies. The largest concentrations of double-crested cormorants are found on the Great Lakes and the lakes of the Canadian prairie provinces.

Q. How do they nest?

A. Cormorants breed in colonies ranging from several pairs to a few thousand. They build their nests of twigs and branches beginning in April, usually in trees or on the ground, on islands favored also by other colonial nesting birds, like great blue herons, great egrets, black-crowned night-herons, cattle egrets, gulls, and terns. Typically, at age three or four adults are ready to breed. Eggs are laid in mid-to-late April, and hatching occurs approximately 25 days later. A typical nest has two or three chicks. These chicks can fly at 5-6 weeks and will accompany adults to feed at 7 weeks. They are independent of the adult birds at 10 weeks.

Q. What about their population?

A. The double-crested cormorant is the most abundant of six species of cormorants occurring in North America. The Service estimates that the current continental population of double-crested cormorants is 2 million birds, with nearly 70 percent of this number in the Interior population centered around the Great Lakes and the prairie region of central Canada. While the total North American population increased rapidly from the 1970s into the 1990s, more recent estimates have indicated that the overall rate of growth in the U.S. and Canada slowed during the early 1990s. For the U.S. as a whole, according to Breeding Bird Survey trends, the breeding population of double-crested cormorants increased at a rate of approximately 7.9 percent per year from 1975-2000.

Q. Will the population continue to increase?

A. The total population will continue to increase in the short term although at a slower rate than in past years. In the long term, the population will likely stabilize due to factors such as disease, lack of available nesting habitat, or limitations on food resources. Because cormorants are not typically preyed upon by other species, their populations are regulated primarily by these factors rather than by predation.

Q. Are double-crested cormorants protected in the U.S. ?

A. Yes, double-crested cormorants are one of approximately 800 species protected under the Migratory Bird Treaty Act of 1918, and subsequent amendments. This act was first passed to implement the terms of a treaty between the U.S. and Canada for the protection of migratory birds. Excessive market hunting of migratory birds prompted this treaty, which was later followed by treaties with Mexico , Japan , and Russia . Double-crested cormorants were first protected in 1972 through an amendment to the Mexican treaty.

Q. What do double-crested cormorants eat?

A. They eat mainly fish. Adults eat an average of one pound per day, usually comprised of small (less than 6 inch) bottom dwelling or schooling “forage” fish. They are opportunistic and generalist feeders, preying on many species of fish, but concentrating on those that are easiest to catch. Because the ease with which a fish can be caught depends on a number of factors (distribution, relative abundance, behavior, etc.), the composition of a cormorant’s diet can vary considerably from site to site and throughout the year.

Q. Do double-crested cormorants negatively impact fish populations in open waters?

A. Cormorants are one of many factors, such as water quality, aquatic habitat, predation, and angler catch, that can affect fish populations. Recently, U.S. Fish and Wildlife Service biologists conducted an extensive review of published studies, most of which indicated that fish species valued by sport and commercial anglers make up a small proportion of the cormorant’s diet. But there are exceptions to this rule and, in some cases, cormorants appear to be capable of taking numbers of sport fish significant enough to have a negative impact on catch rates. For example, recent research studies conducted in New York at Oneida Lake and eastern Lake Ontario have revealed that summer resident and migrating cormorants can diminish the number of fish of catchable size available to anglers. Future research in this area is needed to improve our understanding of the relationship between cormorants and their prey populations.

Q. Do double-crested cormorants significantly affect vegetation and other birds?

A. Cormorants do kill trees, shrubs, and other vegetation, due to accumulation of their guano, which is highly acidic, and removal of foliage for nesting material. If the species of vegetation being damaged is common, the ecological significance of such damage will be limited, although aesthetic concerns may exist. However, cormorant damage can be

ecologically significant, as is the case on some Great Lakes islands where cormorants are causing severe damage to Carolinian vegetation, the rarest type of vegetation in the Great Lakes . In regard to impacts on other colonial waterbirds by cormorants, evidence of locally-significant impacts has been observed by many biologists, particularly in the Great Lakes States and provinces.

Q. Does the U.S. Fish and Wildlife Service control double-crested cormorants when they cause damage?

A. The Service's primary role in double-crested cormorant management is to oversee, coordinate, and authorize control activities conducted by individuals and agencies. We authorize the take of cormorants either through the issuance of depredation permits or under the authority of depredation orders. Permits allow the permittee to take cormorants, their eggs, and nests in order to alleviate specific damages. Such permits are issued only after the individual or agency has applied for a permit, has demonstrated that damage has occurred, and has tried a variety of non-lethal management activities which have proven ineffective. Before issuing a permit, the Service determines that any authorized take has a reasonable chance of resolving the damage, and that the take will not have a significant negative impact on the migratory bird resource. The Service could undertake control of cormorants on lands that it owns, such as National Wildlife Refuges and National Fish Hatcheries, but it normally would not conduct cormorant management activities on other public or private lands.

Q. Does the U.S. Fish and Wildlife Service allow the control of double-crested cormorants at aquacultural facilities?

A. Yes. Since 1998, under a depredation order (50 CFR 21.47), the Service has permitted the lethal take, without a Federal permit, of double-crested cormorants at commercial freshwater aquaculture facilities and State-owned hatcheries in 12 southeastern States and Minnesota when non-lethal methods are ineffective at preventing depredation. In the final rule, the aquaculture depredation order was expanded to allow USDA Wildlife Services officials to conduct winter roost control to prevent cormorant depredation at fish farms. Federal and State hatchery managers will also be allowed to control depredating cormorants.

Q. If the U.S. Fish and Wildlife Service doesn't control cormorants, then who does?

A. Depredation permits can be issued to private landowners or to public agencies (such as State fish and wildlife agencies). While these individuals and agencies can implement control themselves, according to the stipulations of their permit, these entities may request the assistance of experts from the USDA Wildlife Services program. USDA Wildlife Services is responsible for providing Federal leadership in managing problems caused by wildlife and provides assistance to agencies, organizations, and individuals in resolving wildlife damage problems on both public and private lands. They provide recommendations first for a variety of non-lethal management options, including harassment and habitat alteration. If these activities prove ineffective, USDA Wildlife Services may recommend lethal take of migratory birds.

Q. How are the State fish and wildlife agencies involved?

A. State agencies generally oversee on-the-ground management of wildlife in their states. Because of the Migratory Bird Treaty Act, cormorants are a trust responsibility of the U.S. Fish and Wildlife Service. Thus, in order for the States to take cormorants, they must be issued a depredation permit or have authority under a depredation order. In recent years, in the Great Lakes basin, the States of New York and Vermont have received depredation permits for cormorant control activities. The U.S. Fish and Wildlife Service issued these permits, upon the recommendations of USDA Wildlife Services, to reduce competition with other colonial waterbirds, including common terns and black-crowned night herons. In addition, the New York Department of Environmental Conservation has received authority to shoot cormorants at fish stocking sites in Lake Ontario. On Oneida Lake, New York is also working with USDA Wildlife Services to harass cormorants from the lake during the fall migration. Under the new regulations, State fish and wildlife agencies (in 24 States) will be able to conduct activities such as these without a depredation permit, under the terms and conditions of the public resource depredation order.

Q. What management alternatives were analyzed in the final EIS?

A. The Service analyzed the impacts of six separate alternatives in relation to their ability to reduce resource conflicts associated with double-crested cormorants, increase management flexibility, and conserve healthy populations of double-crested cormorants. Those alternatives included:

- **No Action Alternative** - Under this alternative, existing wildlife management policies and practices would continue. These policies and practices include non-lethal management techniques such as harassment and habitat modification, the issuance of depredation permits, and continuation of the aquaculture depredation order. No additional regulatory methods or strategies would be authorized.
- **Non-lethal Management Alternative** - Under this alternative, depredation permits to allow the lethal take of cormorants, their eggs, or their nests would not be authorized. To reduce impacts associated with cormorants, this option would allow only non-lethal management techniques such as harassment, habitat modification, exclusion devices at production facilities, and changes in fish stocking practices.
- **Increased Local Damage Control Alternative** - This alternative would expand the current cormorant depredation policy to address a broader range of resource conflicts. The aquaculture depredation order would continue to allow double-

crested cormorants to be killed at commercial freshwater aquaculture facilities and state-owned fish hatcheries in 13 states, and would be expanded to include winter roost control at aquacultural facilities in those states. Lethal control of double-crested cormorants would be authorized at State and Federal fish hatcheries. Population monitoring on breeding grounds would be conducted at regular intervals.

- **Public Resource Depredation Order Alternative (Preferred Alternative)** This alternative would establish a new public resource depredation order authorizing certain public agencies to implement a cormorant management program, while maintaining Federal oversight of cormorant populations via reporting and monitoring requirements. Control activities under authority of this new depredation order must be intended to alleviate damages to public resources such as fish, wildlife, and vegetation. The aquaculture depredation order would be expanded to allow winter roost control by USDA Wildlife Services professionals. Lethal control of double-crested cormorants would be authorized at State and Federal fish hatcheries. Depredation permits would continue to be used to address conflicts not covered under the depredation orders. Population monitoring on breeding grounds would be conducted at regular intervals.
- **Regional Population Reduction Alternative** - This alternative would require development of regional cormorant population objectives designed to help reduce damages. Control would be carried out at nesting, roosting, wintering and other sites. A special statewide cormorant permit would be issued by the Service to each State choosing to engage in cormorant population reduction efforts. States could then designate other agents to carry out control. The aquaculture depredation order would be expanded to allow winter roost control. Population monitoring on breeding grounds would be conducted at regular intervals.
- **Regulated Hunting Alternative** - Under this alternative, frameworks to develop seasons and bag limits for hunting double-crested cormorants would be established jointly by federal and state wildlife agencies. In addition, the depredation policy outlined in the Increased Local Damage Control Alternative, above, would address continuing conflicts (e.g., via issuance of depredation permits and the aquaculture depredation order). Population monitoring on breeding grounds would be conducted at regular intervals.

Q. Why did the Service select Alternative D as the preferred alternative?

A. Both scientific evidence and evidence based on observations made by resource professionals indicate that double-crested cormorants can and do have significant

biological and economic impacts and that, because of increasing cormorant populations, the threat and/or magnitude of these impacts is greater today than it was 30 years ago. Since cormorant conflicts with public resources tend to be highly localized, it makes sense to give more cormorant management authority to the agencies that are best-suited to address local problems, while maintaining a degree of Federal oversight through reporting and evaluation requirements.

Q. What is the relationship between the Environmental Impact Statement and the rulemaking?

A. The final rule and the final EIS are separate but related documents. “Rulemaking” is the process by which Federal agencies promulgate regulations to implement decisions. An EIS helps the agency consider the environmental aspects of their decisions, as well as involving the public in the decision-making process. The preferred alternative outlined in the final EIS required us to amend the section of the Code of Federal Regulations governing the issuance of migratory bird permits. We did this through the rulemaking process by first issuing a proposed rule for public comment and then by publishing the final rule.

Q. Are there any differences between the proposed rule and the final rule?

A. Yes. The months during which winter roost control is allowed were extended to include April; Section 7 consultation “conservation measures” to protect threatened and endangered species were added; specific suspension and revocation procedures were added; the OMB information collection approval number (1018-0121) and expiration date were added; an advance notification requirement for take of >10% of a breeding colony was added; and monitoring and evaluation requirements were modified. These changes were made in response to public and agency comments or to satisfy procedural requirements.

Q. How does the final rule differ from current management policy for double-crested cormorants?

A. Currently, anyone who has problems with double-crested cormorants must apply for a Federal permit in order to lethally take birds, their eggs, or their nests. The only exception is for aquaculture and State hatchery producers in 13 States, who fall under the authority of the aquaculture depredation order and may, in certain circumstances, take double-crested cormorants without a Federal permit. The final rule changes policy so that State fish and wildlife agencies, Federally recognized tribes, and USDA Wildlife Services, in 24 States, can take cormorants without a Federal permit when they are causing damage to public resources such as fish (including hatchery fish), wildlife, plants, and their habitats. Additionally, USDA Wildlife Services officials will be able to conduct control at winter roost sites, in 13 States, to prevent cormorant depredation and Federal and State hatchery managers in those States will be allowed to control cormorants.

Q. How will the Service keep track of double-crested cormorant populations to ensure that they remain at sustainable levels?

A. Population monitoring provides critical information about population change and tells managers the present population status of species. Cormorant population monitoring is conducted by the Service, USDA Wildlife Services, the Canadian Wildlife Service, the States, and various universities. The U.S. Geological Survey and various non-governmental organizations participate in recording and analyzing the population data. The various types of surveys include the Great Lakes Colonial Waterbird Survey, Atlantic Coast Colonial Waterbird Survey, winter roost surveys, Christmas Bird Counts, and Breeding Bird Surveys. Additionally, in the final rule, agencies that conduct local population control are required to evaluate the effects of their actions on double-crested cormorant populations and annually report their findings to the Service.

Q. What are the reporting requirements associated with the final rule?

A. Each year, agencies acting under authority of the public resource depredation order must provide the appropriate Service Regional Migratory Bird Permit Office with a report detailing activities conducted under the authority of this order (as specified in the final rule). Agencies must, before they initiate control activities in a given year, provide a one-time written notice to the appropriate Service Regional Migratory Bird Permit Office. If any Agency plans control action(s) that would take more than 10% of a cormorant breeding colony it must first provide written notification with information about the proposed activity (at this level of control, the Regional Director may prevent the activity from taking place). For actions that are conducted with the intent of reducing or eliminating local double-crested cormorant populations, Agencies must: carefully plan activities to avoid disturbance of nontarget species, evaluate effects of their management activities on cormorants at the control site, evaluate effects of their management activities on the public resources being protected and on nontarget species; and include this information in their annual report. The Service will prepare annual reports summarizing regional and national double-crested cormorant management efforts.

Q. What happens next?

A. The new regulations will not be effective until 30 days following publication of the final rule and Record of Decision in the Federal Register. Thus, the effective date will be November 7, 2003. This waiting period allows the public and agencies to become familiar with the new regulations before implementing any actions.

Q. Can I obtain information on the Internet on double-crested cormorants and what is being done to manage them?

A. Yes, online information is available at several websites:

U.S. Fish and Wildlife Service Division of Migratory Bird Management:

<http://migratorybirds.fws.gov/issues/cormorant/cormorant.html>

U.S. Department of Agriculture APHIS Wildlife Services:

<http://www.aphis.usda.gov/ws/nwrc/is/cormorants/index.html>

Canadian Wildlife Service:

http://www.on.ec.gc.ca/wildlife/factsheets/fs_cormorants-e.html

McMaster University :

<http://www.science.mcmaster.ca/Biology/Harbour/SPECIES/CORMRNT/CORMRNT.H>
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New York State Department of Environmental Conservation:

<http://www.dec.state.ny.us/website/dfwmr/cormorant/index.html>

U.S. Geological Survey Patuxent Wildlife Research Center :

<http://www.mbr-pwrc.usgs.gov/id/mlist/h1200.html>